FLIGHT SUMMARY REPORT

Flight Number: 97-068

Calendar/Julian Date: 13 March 1997 • 072

Sensor Package: Dual Hycon HR-732

Area(s) Covered: Tomales Bay/Central Valley/Sierra Nevada

Investigator(s): Functional Sensor Flight **Aircraft #:** 706

SENSOR DATA

Accession #:	05167	05168
Sensor ID #:	020	039
Sensor Type:	HR-732	HR-732
Focal Length:	24” 609 mm	24” 609 mm
Film Type:	Aerochrome II MS-2448	Panatomic X Aerographic II, 2412
Filtration:	HF-3 Haze filter	Wratten 12
Spectral Band:	420-700 nm	510-700 nm
f Stop:	10	8
Shutter Speed:	1/250	1/250
# of Frames:	67	141
% Overlap:	60	60
Quality:	Fair	Excellent
Remarks:	Overexposed	

Airborne Science and Applications Program

The Airborne Science and Applications Program (ASAP) is supported by three ER-2 high altitude Earth Resources Survey aircraft. These aircraft are operated by the High Altitude Missions Branch at NASA-Ames Research Center, Moffett Field, California. The ER-2s are used as readily deployable high altitude sensor platforms to collect remote sensing and in situ data on earth resources, celestial phenomena, atmospheric dynamics, and oceanic processes. Additionally, these aircraft are used for electronic sensor research and development and satellite investigative support.

The ER-2s are flown from various deployment sites in support of scientific research sponsored by NASA and other federal, state, university, and industry investigators. Data are collected from deployment sites in Kansas, Texas, Virginia, Florida, and Alaska. Cooperative international scientific projects have deployed the aircraft to sites in Great Britain, Australia, Chile, and Norway.

Photographic and digital imaging sensors are flown aboard the ER-2s in support of research objectives defined by the sponsoring investigators. High resolution mapping cameras and digital multispectral imaging sensors are utilized in a variety of configurations in the ER-2s' four pressurized experiment compartments. The following provides a description of the digital multispectral sensor(s) and camera(s) used for data collection during this flight.

Camera Systems

Various camera systems and films are used for photographic data collection. Film types include high definition color infrared, natural color, and black and white emulsions. Available photographic systems are as follows:

- Wild-Heerbrugg RC-10 metric mapping camera
  - 9 x 9 inch film format
  - 6 inch focal length lens provides area coverage of 16 x 16 nautical miles from 65,000 feet
  - 12 inch focal length lens provides area coverage of 8 x 8 nautical miles from 65,000 feet

- Hycon HR-732 large scale mapping camera
  - 9 x 18 inch film format
  - 24 inch focal length lens provides area coverage of 4 x 8 nautical miles from 65,000 feet

- IRIS II Panoramic camera
  - 4.5 x 34.7 inch film format
  - 24 inch focal length lens
  - 90 degree field of view provides area coverage of 2 x 21.4 nautical miles from 65,000 feet

The U.S. Geological Survey's EROS Data Center at Sioux Falls, South Dakota serves as the archive and product distribution facility for NASA-Ames aircraft acquired photographic and digital imagery. For information regarding photography and digital data (including areas of coverage, products, and product costs) contact EROS Data Center, Customer Services, Sioux Falls, South Dakota 57198 (Telephone: 605-594-6151).

Information regarding ER-2 acquired photographic and digital data is available through the Aircraft Data Facility at Ames Research Center. For specific information regarding flight documentation, sensor parameters, and areas of coverage contact the Aircraft Data Facility, NASA-Ames Research Center, Mail Stop 240-6, Moffett Field, California 94035-1000 (Telephone: 650-604-6252).

CAMERA FLIGHT LINE DATA
FLIGHT NO. 97-068

Accession # 05167

Sensor # 020

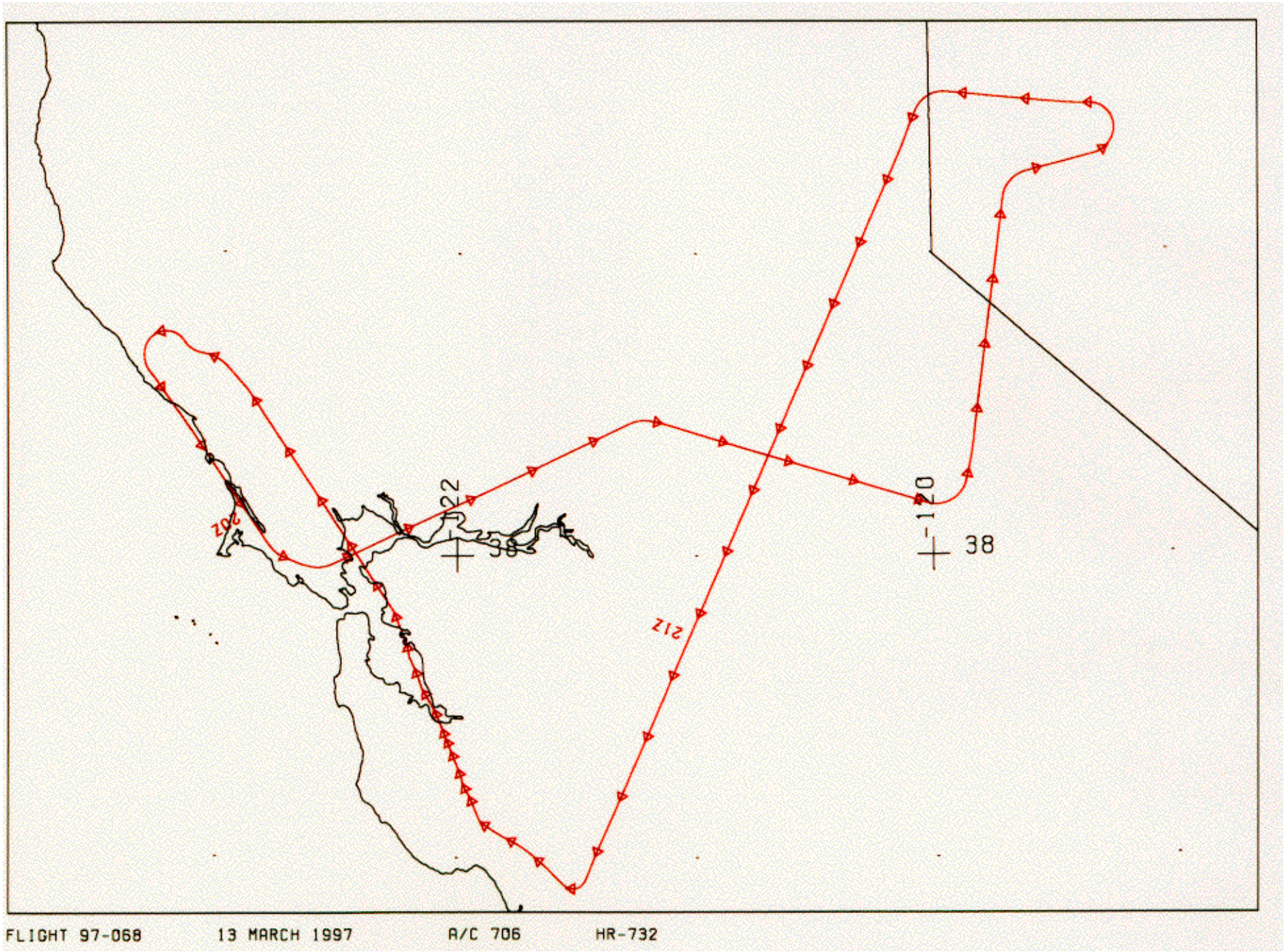
Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	0001-0024	19:55:34	20:01:10	66421/20245	10-30% stratus (frames 0001-0007); 10-80% cirrus (frames 0013-0024)
C - D	0025-0053	20:05:50	20:12:38	68379/20842	10% cirrus (frames 0025-0026); thin cirrus (frames 0030-0033); 10-30% cirrus (frames 0034-0044); 10-40% cirrus (frames 0047-0053)
E - F	0054-0067	20:25:16	20:28:25	65400/19934	Thin cirrus (frames 0063-0064)

CAMERA FLIGHT LINE DATA
FLIGHT NO. 97-068

Accession # 05168

Sensor # 039

Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	0001-0024	19:55:37	20:01:13	66412/20242	10-30% stratus (frames 0001-0007); 10-80% cirrus (frames 0013-0024)
C - D	0025-0053	20:05:53	20:12:41	68379/20842	10% cirrus (frames 0025-0026); thin cirrus (frames 0031-0033); 10-30% cirrus (frames 0034-0044); 10-40% cirrus (frames 0047-0053)
E - G	0054-0082	20:25:19	20:32:05	65238/19885	Thin cirrus (frames 0063-0064)
G - H	0083-0090	20:33:27	20:35:08	64408/19632	Clear
I - J	0091-0103	20:39:08	20:42:01	68087/20753	Clear
K - L	0104-0141	20:46:16	20:55:10	68087/20753	Aircraft contrail (frame 0104); thin cirrus (frames 0110-0112); 10% cirrus (frames 0120-0128); 20-80% cirrus (frames 0135-0141)



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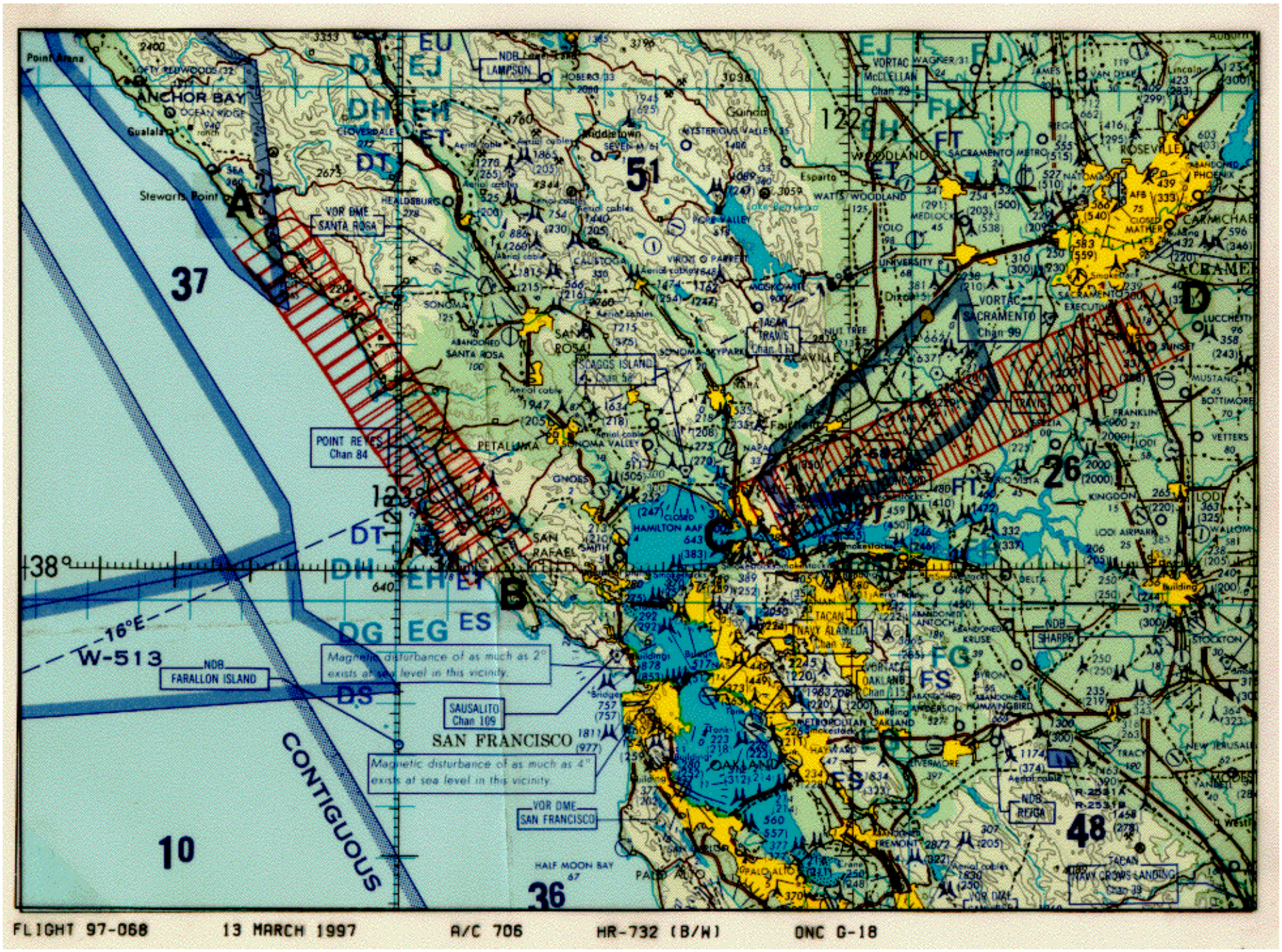

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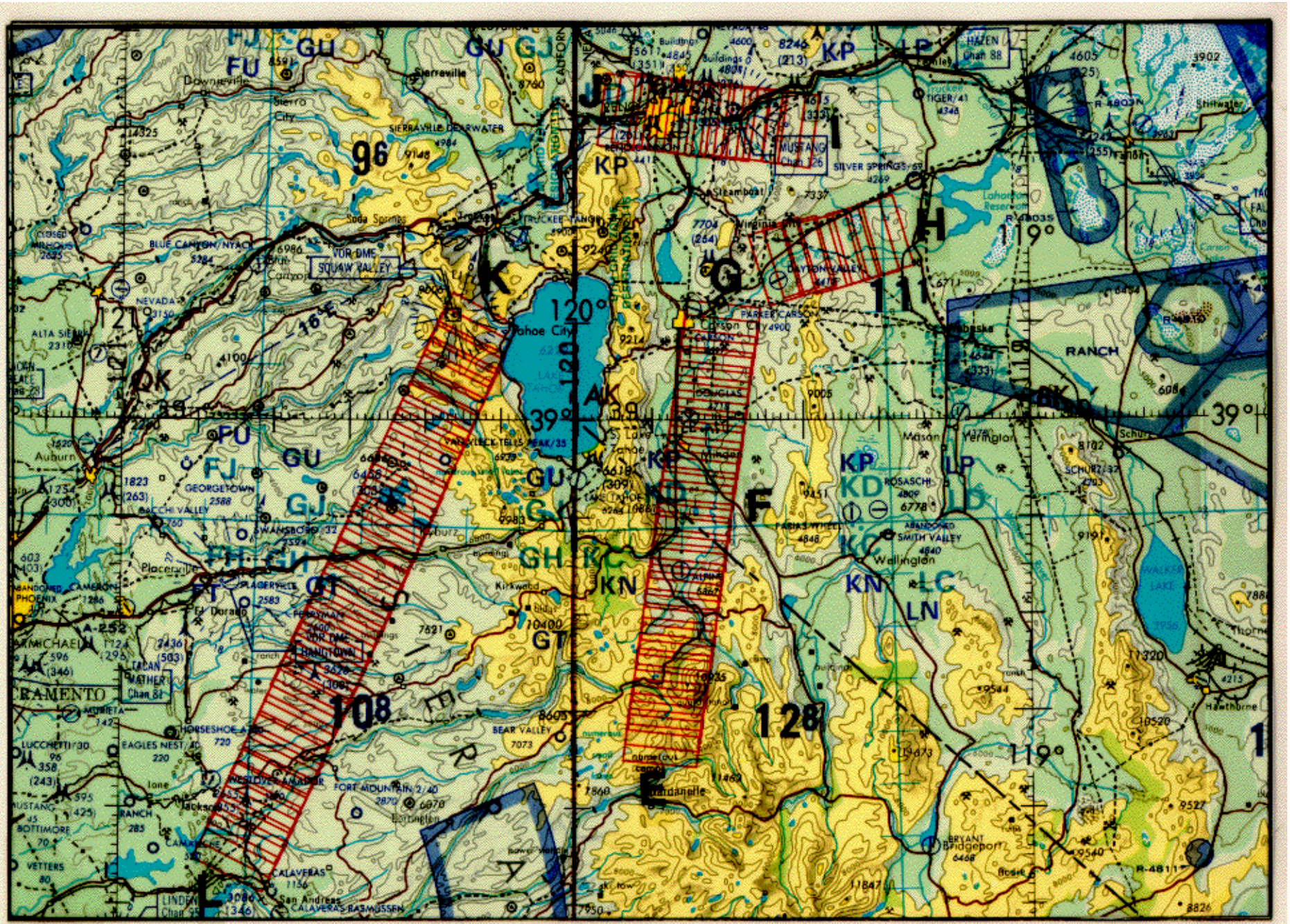

FLIGHT 97-068 13 MARCH 1997 A/C 706 HR-732 (B/W) ONC G-18